In the Matter of

Low Power FM Radio Service.
A transit application is proposed.

MM Docket No. 99-25

COMMENTS OF

Corey Satten
514 N. 59th Street
Seattle, WA 98103
206-784-6662

I, Corey Satten, a private citizen, as a public service, file these comments on May 15, 1999, on the FCC's exploration of the creation of a Low Power FM Radio Service, Docket No. MM 99-25 to bring to the FCC's attention a public transit application of low power FM radio which I believe could revolutionize the bus riding experience.

As anyone who has ridden a city bus knows, one of the most frustrating aspects of the experience is the discomfort, uncertainty and amount of time wasted waiting at bus stops. This waiting time can easily dwarf the riding time.

If people can spend their waiting time more comfortably and/or usefully (either at their destination or at home) and then only go to the bus stop a minute or two before the bus arrives, I think city transit could become a viable alternative to many wasteful short car trips.

In Seattle, others have already done the hard work of tracking and computerizing bus locations and making that data available in real-time on the internet. I would like to be able to bring this information to bus riders in a more practical and convenient way: to radios and personal stereos they already own, as spoken announcements broadcast from low power FM transmitters distributed along the bus route.

As I currently envision it, a single PC could harvest the bus locations for at least one whole bus route and can centrally synthesize the spoken announcements for each of the transmitters. The central PC would convey the audio announcements to the transmitters by telephone. Each transmitter would be hosted by a prominent business along the route. A transmitting range of about ½ to ¾ mile would make the economics work out, would cover a reasonable number of residences near the transmitter, and still give enough precision to the arrival time announcements. My research indicates that I can not achieve sufficient range on either AM or FM broadcast bands within current FCC part 15 regulations.

To improve reception in the areas midway between adjacent transmitters, one could use multiple frequences however I think one could also make this idea work on a single frequency by sequencing transmissions so that adjacent transmitters were not broadcasting simultaneously. This would reduce the time available for announcements and complicate the transmitters somewhat but should still be workable.

In urban centers where many bus routes overlap, there is insufficient bandwidth to broadcast data for each route and I do not offer a radio solution for those areas. However, in most neighborhoods, there are only one or two bus routes nearby and I think this scheme should work nicely.

As I envision it, one phone line and a share of the central hardware should be inexpensive enough that the business hosts would be willing to pay for it as good advertising. If the FCC makes the license fee or requirements for the transmitters prohibitively expensive, I fear this idea will not get off the ground unless the city adopts it.

In summary, the key requirements I see for the radio part of this project are that the transmitters be inexpensive (including license fees) and their range be pretty close to ½ to ¾ mile.

Thank you for your consideration.

Submitted by:

Corey Satten
May 15, 1999